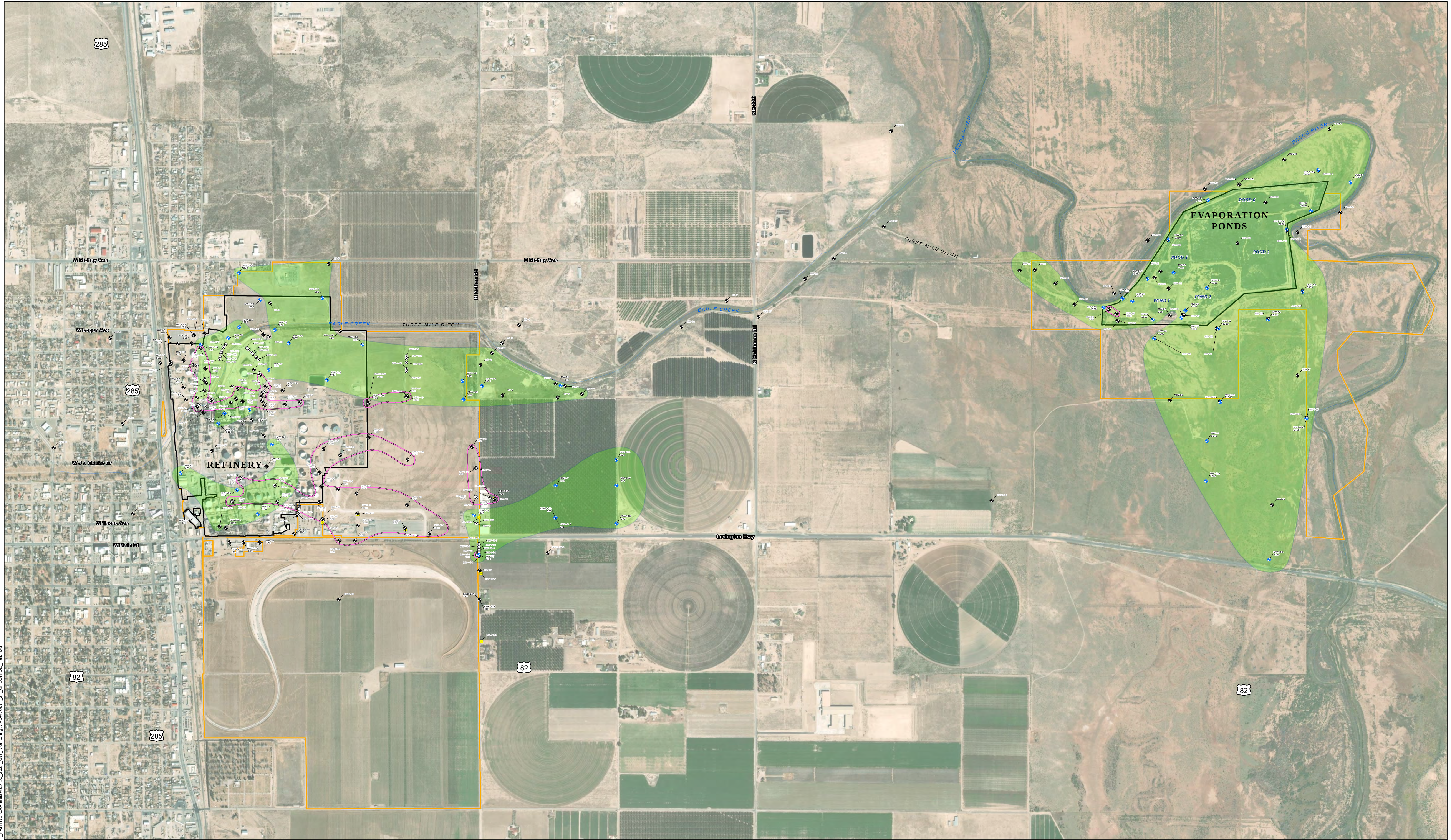




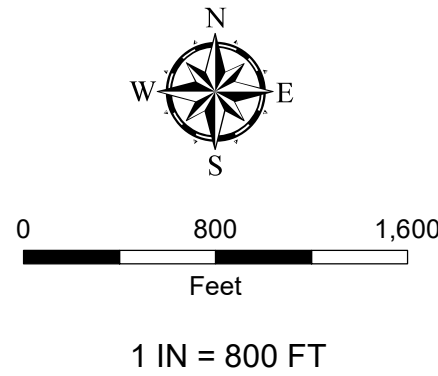
LEGEND

- ◆ MONITORING WELL EXCEEDS SCREENING LEVELS
- ◆ MONITORING WELL
- IRRIGATION WELL
- ⊙ RECOVERY WELL

- 179 CHLORIDE CONCENTRATION
- MW-106 WELL NOT SAMPLED
- PSH PHASE-SEPARATED HYDROCARBON PRESENT IN WELL (≥ 0.03 FEET THICK)
- CHLORIDE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE AREA (CONCENTRATION > 250 mg/L)
- FENCELINE
- NAVAJO PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)

PHASE-SEPARATED HYDROCARBON (PSH)

NOTES:
1. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER LITER (mg/L).



CHLORIDE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE MAP 2021 SECOND SEMIANNUAL EVENT

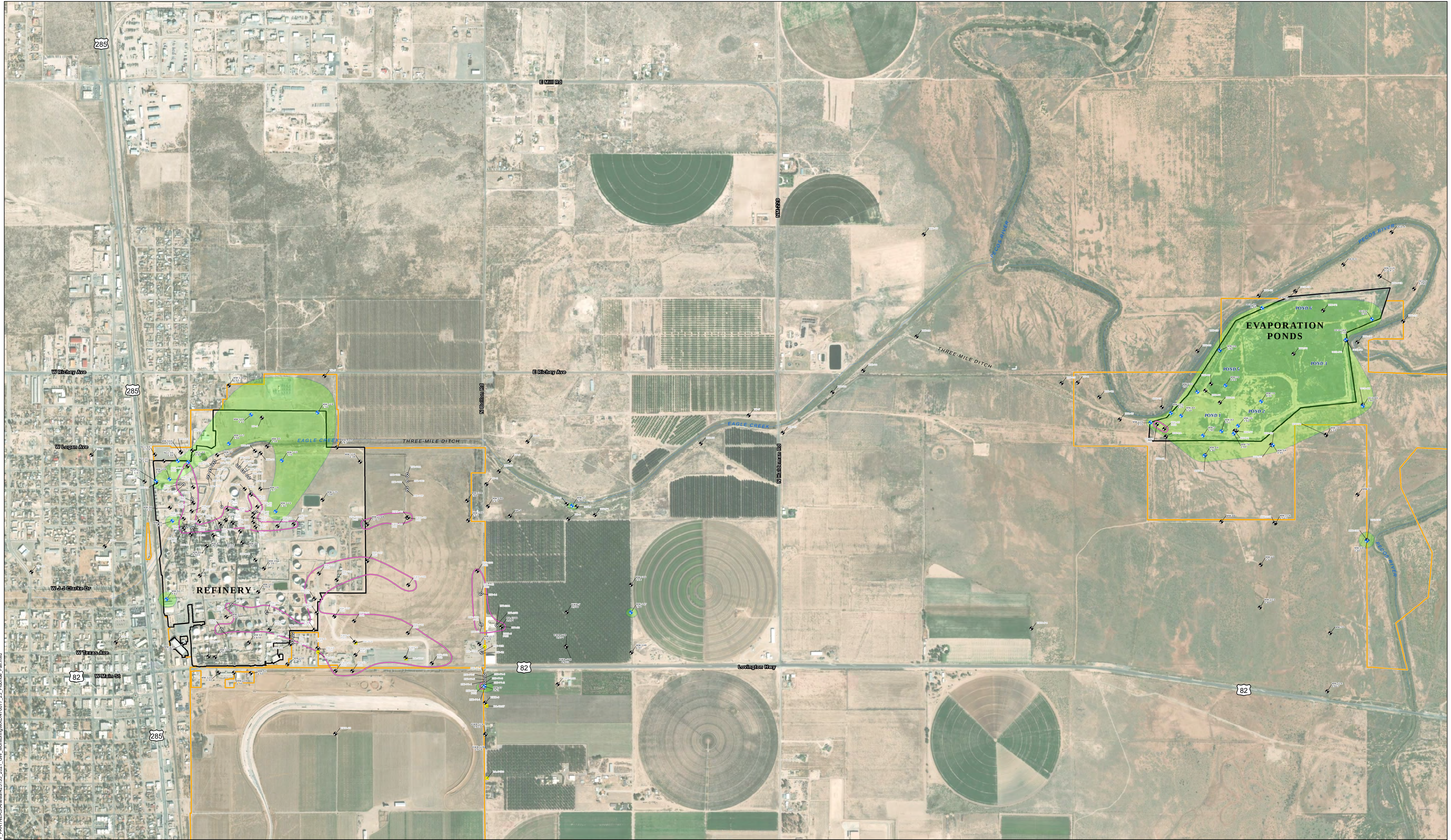
2021 ANNUAL GROUNDWATER REPORT
HOLLYFRONTIER NAVAJO REFINING LLC
ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO

AUTHOR: MJAGOE SAVED: 1/28/2022 MKD: 476077_21_CHLORIDE_FWI



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FIGURE
21



LEGEND

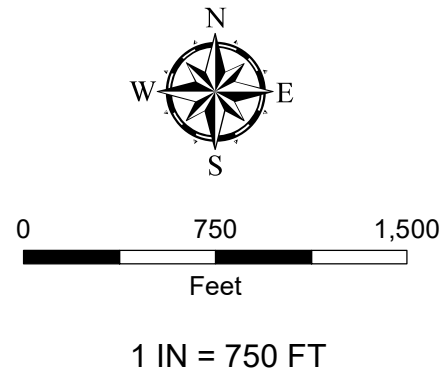
- ◆ MONITORING WELL EXCEEDS SCREENING LEVELS
- ◆ MONITORING WELL
- IRRIGATION WELL
- RECOVERY WELL

- 1.84 FLUORIDE CONCENTRATION
- MW-30 WELL NOT SAMPLED
- PSH PHASE-SEPARATED HYDROCARBON PRESENT IN WELL (≥ 0.03 FEET THICK)
- FLUORIDE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE AREA (CONCENTRATION > 1.6 mg/L)
- FENCELINE
- NAVAJO PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)

PHASE-SEPARATED HYDROCARBON (PSH)

NOTES:

1. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER LITER (mg/L).
2. J = CONCENTRATION QUALIFIED AS AN ESTIMATED VALUE.



FLUORIDE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE MAP 2021 SECOND SEMIANNUAL EVENT

2021 ANNUAL GROUNDWATER REPORT
HOLLYFRONTIER NAVAJO REFINING LLC
ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO

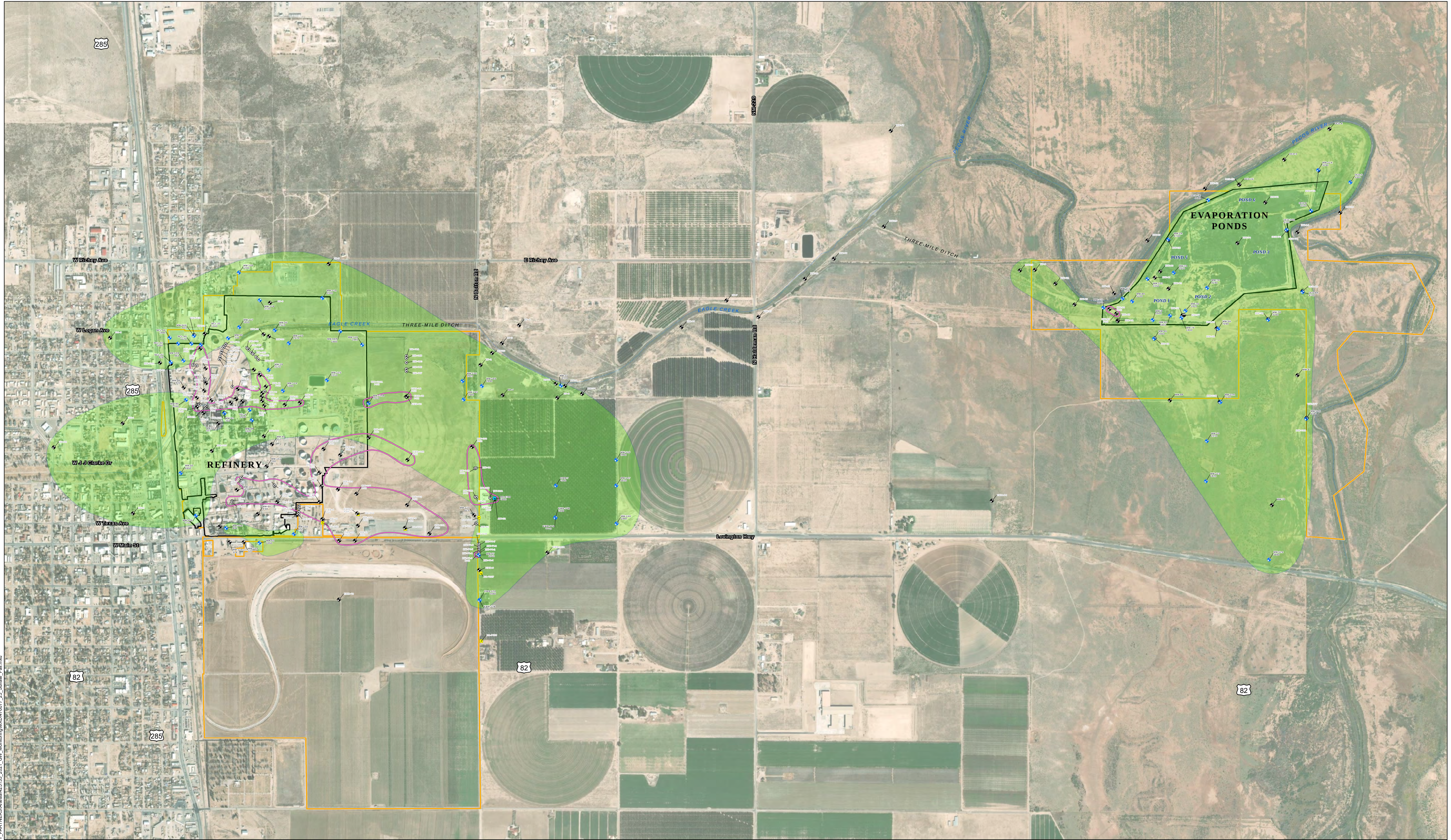
AUTHOR: MJAGOE SAVED: 1/31/2022 MOD: 4/76077_23_Fluoride_Fall



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FIGURE
23

Document Path: S:\PROJECTS\HOLLY ENERGY PARTNERS\Artesia\429135_2021 GW Monitoring\MXD\76077_23_Fluoride_Fall.mxd
AERIAL IMAGERY SOURCE: ESRI WORLD IMAGERY (10/1/20)



LEGEND

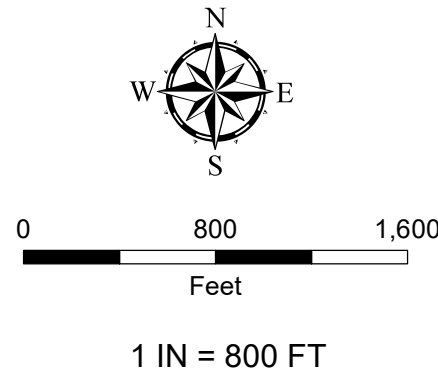
- ◆ MONITORING WELL EXCEEDS SCREENING LEVELS
- ◆ MONITORING WELL
- ◆ IRRIGATION WELL EXCEEDS SCREENING LEVELS
- ◆ IRRIGATION WELL
- RECOVERY WELL

- 834 Sulfate Concentration
- MW-105 Well Not Sampled
- PSH Phase-Separated Hydrocarbon Present in Well (≥ 0.03 Feet Thick)
- ◆ Sulfate Critical Groundwater Screening Level Exceedance Area (Concentration > 600 mg/L)
- FENCELINE
- NAVAJO PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)

PSH PHASE-SEPARATED HYDROCARBON (PSH)

NOTES:

1. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER LITER (mg/L).
2. J = CONCENTRATION QUALIFIED AS AN ESTIMATED VALUE.



SULFATE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE MAP 2021 SECOND SEMIANNUAL EVENT

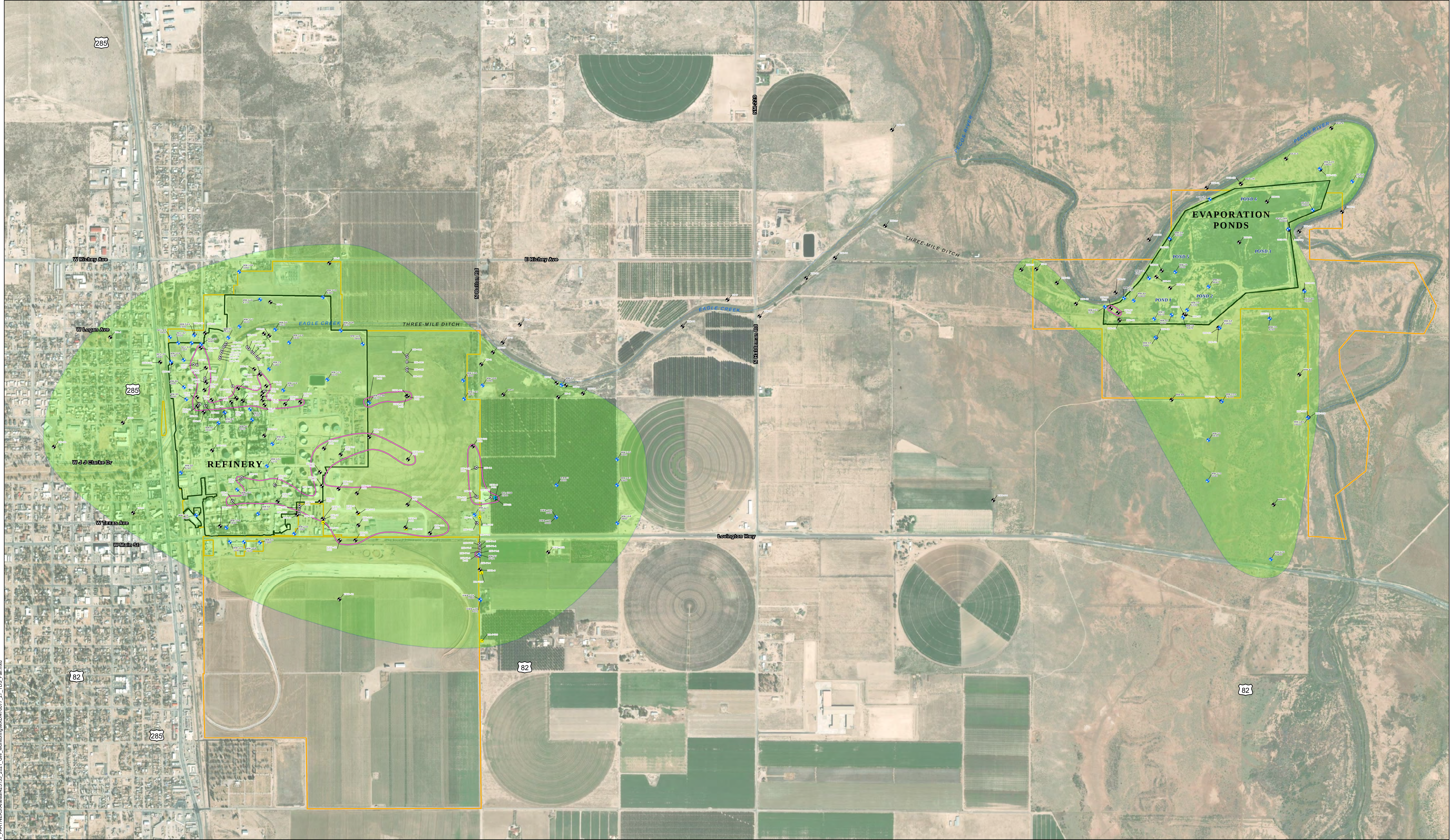
2021 ANNUAL GROUNDWATER REPORT
HOLLYFRONTIER NAVAJO REFINING, LLC
ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO

AUTHOR: MJAGOE SAVED: 1/28/2022 MOD: 4/16/2022_Sulfate_Fall



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FIGURE
25



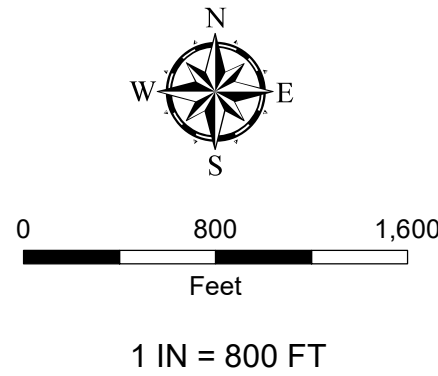
LEGEND

- ◆ MONITORING WELL EXCEEDS SCREENING LEVELS
- ◆ MONITORING WELL
- IRRIGATION WELL EXCEEDS SCREENING LEVELS
- IRRIGATION WELL
- RECOVERY WELL

- 2020 TOTAL DISSOLVED SOLIDS CONCENTRATION WELL NOT SAMPLED
- PSH PHASE-SEPARATED HYDROCARBON PRESENT IN WELL (≥ 0.03 FEET THICK)
- TOTAL DISSOLVED SOLIDS CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE AREA (CONCENTRATION > 1000 mg/L)
- FENCELINE
- NAVAJO PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)

PHASE-SEPARATED HYDROCARBON (PSH)

NOTES:
1. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER LITER (mg/L).



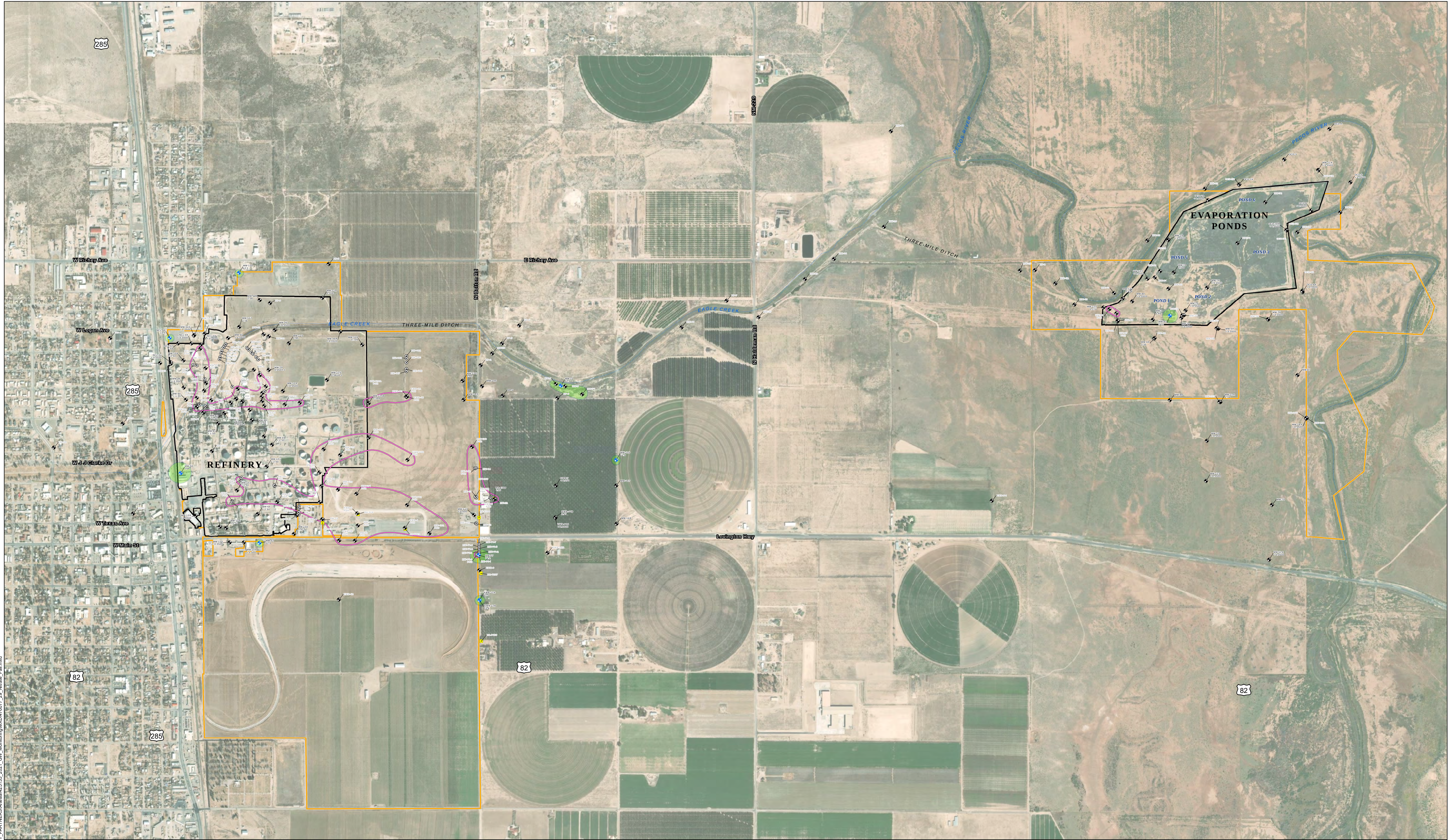
TOTAL DISSOLVED SOLIDS CRITICAL
GROUNDWATER SCREENING LEVEL
EXCEEDANCE MAP
2021 SECOND SEMIANNUAL EVENT
2021 ANNUAL GROUNDWATER REPORT
HOLLYFRONTIER NAVAJO REFINING LLC
ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO

AUTHOR: MJAGOE SAVED: 1/28/2022 MXD: 4/76077_27_TDS_FAI



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FIGURE
27



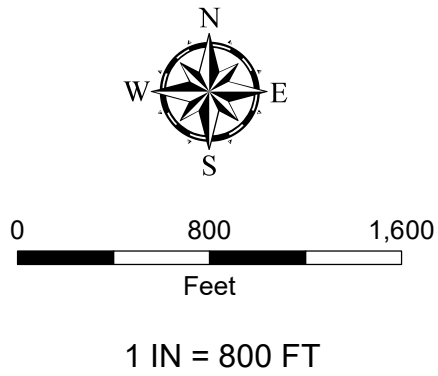
LEGEND

- ♦ MONITORING WELL EXCEEDS SCREENING LEVELS
- ♦ MONITORING WELL
- IRRIGATION WELL
- RECOVERY WELL

- 1.85 NITRATE/NITRITE CONCENTRATION
- < 0.394 NITRATE/NITRITE NOT DETECTED ABOVE METHOD DETECTION LIMIT
- MW-100 WELL NOT SAMPLED
- PSH PHASE-SEPARATED HYDROCARBON PRESENT IN WELL (≥ 0.03 FEET THICK)
- NITRATE/NITRITE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE AREA (CONCENTRATION > 10 mg/L)
- FENCELINE

- NAVAJO PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)
- PHASE-SEPARATED HYDROCARBON (PSH)

- NOTES:
1. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER LITER (mg/L).
 2. J = CONCENTRATION QUALIFIED AS AN ESTIMATED VALUE.



NITRATE/NITRITE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE MAP 2021 SECOND SEMIANNUAL EVENT

2021 ANNUAL GROUNDWATER REPORT
HOLLYFRONTIER NAVAJO REFINING LLC
ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO

AUTHOR: MJAGOE SAVED: 2/2/2022 MOD: 4/16/22_20_Nitrate_Fall



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FIGURE
29

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1625 N. French Dr., Hobbs, NM 88240
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811 S. First St., Artesia, NM 88210
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District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 335119

CONDITIONS

Operator: HF Sinclair Navajo Refining LLC ATTN: GENERAL COUNSEL Dallas, TX 75201	OGRID:	15694
	Action Number:	335119
	Action Type:	[UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	2021 Second Semi-Annual event exceedance map has been accepted for the record for GW-028 RO discharge fields at Navajo Refinery.	5/3/2024